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EXAMINER

STEELMAN, MARY J

ART UNIT PAPER NUMBER

2122

DATE MAILED: 10/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/482,178

Applicant(s)

OSBORNE, II ET AL.

Examiner

Mary J. Steelman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 Oct 2000, 28 Jan 2000 & 14 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 12 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

1. Claims 1 – 22 are presented for examination.

DETAILED ACTION

Specification

2. The Specification is objected to for the following reasons:
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:

“Test code generator, engine and data analyzer for testing middleware applications.”
4. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

5. **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), “Sequence Listings” (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

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- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

6. The disclosure is objected to because of the following informalities: Page 38, claim 22, line 10 recites "lease" Should be --least--. Appropriate correction is required.

7. Page 5 of the Specification is an incomplete sentence. Page 6 of the Specification is a blank page. It would appear that some words are missing.

8. Page 15, lines 12 and 31 of the Specification references Appendix 1 and 2. Page 20, line 12 references Appendix 3.

Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

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Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

The description portion of this application contains a computer program listing consisting of more than three hundred (300) lines. In accordance with 37 CFR 1.96(c), a computer program listing printout of more than three hundred lines must be submitted as a computer program listing appendix on compact disc conforming to the standards set forth in 37 CFR 1.96(c)(2) and must be appropriately referenced in the specification (see 37 CFR 1.77(b)(4)). Accordingly, applicant is required to cancel the computer program listing appearing in the specification on page 18, line 31, file a computer program listing appendix on compact disc in compliance with 37 CFR 1.96(c) and insert an appropriate reference to the newly added computer program listing appendix on compact disc at the beginning of the specification.

9. The use of the trademark JAVA (JAVA beans) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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11. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Trademark or Trade Name as a Limitation in the Claim

Claim 19 contains the trademark/trade name JAVA. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe byte code instruction set architecture and virtual machines and object components and, accordingly, the identification/description is indefinite.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1, 4, 16, 18, and 22 are provisionally rejected under the judicially created doctrine of double patenting over claims 18, 3, 17, (13, 18, & 31) and (1 & 23) respectively of copending Application No.09 / 548203. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: The correspondence between the instant claims and the copending Application claims is as follows:

Application 09/482178 Claim 22 compared to Application 09/548203 Claim 1:

A system for determining performance of an application under test in response to load, the system comprising...

Identical claim except claim1, '203 is for a server having at least one JVM executing client test code, whereas claim 22, '178 is for a server having a plurality of threads thereon...

Specifically a JVM is capable of running a plurality of threads and thus the claims are a case of obvious double patenting.

Application 09/482178, Claim 4 compared to Application 09/548203, Claim 3:

Claim 3, '203 states at least one JVM is synchronized to start execution...with another ...JVM, whereas claim 4, '178 states "the step of synchronizing comprises starting each instance of test code at the same time.

Specifically, both claims are referring to a synchronized start of execution.

Application 09/482178, Claim 18 compared to Application 09/548203, Claim 13:

Claim 13, '203 states, "A method of testing a computerized application, the application under test having a plurality of software components...having at least one method..., whereas claim 18, '178 states "A method of testing a computerized application under test that allows simultaneous users ...having a plurality of ...components..."

Specifically, both claims refer to a providing test code, creating a plurality of copies of test code, simultaneously executing test code, recording times and analyzing. '203 calls for providing a folder for each method being exercised, whereas '178 calls for creating a second plurality of copies of test code.

Application 09/482178, Claim 16 compared to Application 09/548203, Claim 17:

Claim 17, '203 states, "calculations are selected from the group consisting of the average response time...and the total response time..." whereas claim 16, '178 states, "analyzing comprises determining the average and maximum execution times..."

Specifically, both claims are referring to average and total response time of test execution.

Application 09/482178, Claims 1 & 18 compared to Application 09/548203, Claim 18:

Claim 18, '203 states "A computer program product for testing...having a plurality of software components...comprising instructions for providing test code..., instructions creating a plurality of copies...instructions for simultaneously executing..., instructions for providing a folder for each method..., instructions for recording times.... instructions for analyzing..."

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whereas claim 1, '178 states "A method of testing ...providing test code...synchronizing and executing a...test code and recording performance data...repeating..., analyzing" and claim 18, '178 states "A method of testing...comprising...providing test code...,creating a first plurality of copies...simultaneously executing...,creating a second plurality...,simultaneously executing...,repeating...,analyzing..."

Specifically, both claims are refer to testing code and analyzing results.

Application 09/482178, Claim 22 compared to Application 09/548203, Claim 23:

Claim 23, '203 states "A system for determining performance... comprising... coordination software... code generator...test engine...data log holding timing data...data analyzer..." whereas claim 226, '178 states "A system for determining performance... comprising... coordination software...code generator...test engine...data log...data analyzer..."

Specifically, the claims are identical except that claim 23, '203 calls for the code generator to provide a template for a datatable.

Application 09/482178, Claim 18 compared to Application 09/548203, Claim 31:

Claim 31, '203 states "A method of testing ...comprising the steps of providing test code...providing a class file...creating...copies of test code...simultaneously executing...recording times...creating a second plurality of copies of test code, simultaneously executing...repeating.... while recording event times...analyzing...", whereas claim 18, '178 is identical except that it doesn't call for "providing a class file for each method of said component directly to each user."

Claim Rejections - 35 USC § 102

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14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

15. Claims 1 – 22 are rejected under 35 U.S.C. 102(e) as being unpatentable over U.S. Patent 5,974,572 to Weinberg et al.

Per claim 1, Weinberg disclosed:

- providing test code that exercises a component of the application under test. (Figs. 25-32 and col. 31, lines 61-63, "...the ability to automatically generate load testing scripts...");
- synchronizing and executing a plurality of instances of the test code and recording performance data on the component of the application under test. (Col. 20, lines 22-26, "A task manager process handles issues related to the management of the threads...");

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-repeating step (b) multiple times, with a different number of instances of the test code. (Col. 33, lines 24-34, "...user specifies such details as the number of Vusers...and the number of consecutive times ("loops") that each Web script is to be run...");

-analyzing the recorded performance data to indicate a performance characteristic of the component of the application under test in response to load. (Col 32, line 64 – col. 33, line8, "...each Vuser monitors the Web site's responses to the client requests...and records various performance-related characteristics...There characteristics include, for example, response times...user is presented with a set of graphical reports...").

Per claim 2, Weinberg disclosed:

-the step of providing test code includes generating test code automatically. (Col. 33, lines 47-50, "...a code module is provided that automatically generates a load testing scenario...").

Per claim 3, Weinberg disclosed:

-the application under test is an object oriented language and the step of providing test code comprises providing test code to exercise one object in the application. (The server application under test could be an object oriented language as noted in col. 16, lines 9-27, there exists the ability for a filter to filter out URLs of various types, including Java. Also, col. 33, lines 63-64, "...the load tests accurately emulate realistic load conditions. (exercises objects in application)").

Per claim 4, Weinberg disclosed:

-the step of synchronizing comprises starting each instance of the test code at the same time. (Col. 20, lines 22-26, "A task manager process...handles issues related to the management of the threads, including the synchronization...").

Per claim 5, Weinberg disclosed:

-the step of synchronizing and executing comprises executing a portion of the plurality of instances of test code on a first computer and a portion of the plurality of instance of test code on a second computer connected to the network. (Fig. 25 and col. 32, lines 51-58, "...multiple Vusers (i.e., multiple instances of the Vuser executable) can be run simultaneously on a single workstation...This produces a load in which multiple client requests can...be pending at-a-time...").

Per claim 6, Weinberg disclosed:

Preparing a graphical display having as an independent variable the number of instances of the test code and the dependent variable is the performance data. (Fig. 26 and col. 18, lines 64-67, "...the Action Tracker plug-in communicates with the Web sites...to retrieve server access log files for performing Web site activity analyses. Also, col. 33, lines 3-8, "...user is presented with a set of graphical reports that allow the user (to) evaluate the site's performance...").

Per claim 7, Weinberg disclosed:

Preparing a graphical display having as an independent variable the number of instances of the test code and the dependent variable is derived from the performance data. (Fig. 26, col. 32, line 64 – col. 33, line 8, "...records various performance-related characteristics of these responses. These characteristics include...response times to individual client requests...the user is presented with a set of graphical reports...the user can...compare response times of different site components...").

Per claim 8, Weinberg disclosed:

-the application under test is resident on a first server within the network and the application has a remote interface and the test code is resident on at least a second computer within the network

and exercises the application under test using the remote interface of the application under test. (Fig. 7, and col. 18, lines 50-58, "The Web servers may...run on a single computer, run on multiple computers..." Also, fig. 25 shows multiple Vuser clients testing a server.).

Per claim 9, Weinberg disclosed:

-The step of analyzing includes displaying the analyzed data to a human user using a graphical user interface. (Col. 33, lines 3-4, "the user is presented with a set of graphical reports...").

Per claim 10, Weinberg disclosed:

-specifying test conditions through a user interface to a test system. (Col. 2, lines 39-41, "...user can generate and save multiple test scripts...and then use a "Scenario Wizard" tool to define how these scripts will be used to test the site...");

-initiating through a user interface to the test system the gathering of test data on the performance of at least one component of the application under test at a plurality of load conditions. (Col. 32, line 26 - 51, "LoadRunner and SiteTest Products...use prerecorded load testing scripts...to conduct load tests of Web sites...Web scripts are generated...During the load testing process, Web scripts are sequentially played...using a Vuser executable...");

-specifying through a user interface to the test system the output format of the test data. (Col. 32, line 64 – col. 33, line 8, "...each Vuser monitors...and records various performance-related characteristics...These characteristics include...response times...user is presented with a set of graphical reports...Using these reports, the user can...compare response times...");

-displaying in the specified format the response of at least one component of the application under test to load. (Col. 33, line 3-4, "...the user is presented with a set of graphical reports...").

Per claim 11, Weinberg disclosed:

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-the specified format is a graphical format indicating response time as a function of load conditions. (Col. 33, line 3-4, "...the user is presented with a set of graphical reports...").

Per claim 12, Weinberg disclosed:

-the specified graphical format is a Hi-Lo plot. (Col. 33, line 3-4, "...the user is presented with a set of graphical reports...").

Per claim 13, Weinberg disclosed:

-the step of gathering data under a plurality of load conditions comprises initiating the execution of a plurality of copies of a test program, with the number of copies executing simultaneously relates to the load condition. (Col. 33, lines 24-39, "To define a scenario, the user initially uses the Web Vuser Generator component to generate the Web scripts to be included within the scenario...the user specifies such details as the number of Vusers, the Web script to be run...and the number of consecutive times...The user can also define one of more Sgroups, and can specify various testing parameters...").

Per claim 14, Weinberg disclosed:

-the step of specifying an output format includes specifying a method by which response is measured. (Col. 32, line 64 – col. 33, line 8, "Vuser monitors the Web site's responses to the client requests submitted by that Vuser, and records various performance-related characteristics of these responses...These characteristics include, for example, response times...user is presented with a set of graphical reports that allow the user (to) evaluate the site's performance...").

Per claim 15, Weinberg disclosed:

-the step of gathering test data includes recording the execution time between selected points in the test program for each simultaneously executing copy of the test program and analyzing the recorded execution times for all copies of the test program. (Col. 33, line 5-6, "...user can...compare response times of different site components...").

Per claim 16, Weinberg disclosed:

-the step of analyzing comprises determining the average and maximum execution times for each of the load conditions. (Col. 32. line 64 – col. 33, line8, "Vuser monitors the Web site's responses to the client requests submitted by that Vuser, and records various performance-related characteristics of these responses...These characteristics include, for example, response times...user is presented with a set of graphical reports that allow the user (to) evaluate the site's performance...").

Per claim 17, Weinberg disclosed:

-the computerized application under test comprises software resident on a server controlling access to a computerized database. (Col. 3, lines 5-15, "...based on information stored within a server access log file. The server access log file is ...generated by...Web server. These log files contain information about accesses..." Also see fig. 13, item 180 and col. 25, lines 3-11, "...specifies ...other Web server extension component 180 to which the form is addressed...Astra extract the dataset...");

-the server is connected to a network and the application under test is simultaneously accessed by a plurality of clients over the network. (Fig. 11 and fig. 25);

-the test system is resident on at least a second server connected to the network. (Figs. 11 & 25).

Per claim 18, Weinberg disclosed:

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- providing test code to exercise a component. (Figs. 25-32 and col. 31, lines 61-63, "...the ability to automatically generate load testing scripts...");
- creating a first plurality of copies of the test code. (Col. 33, lines 14-16, "Vusers can be arranged into groups that run the same Web script...");
- simultaneously executing the first plurality of copies of test code while recording times between events in each of the first plurality of copies of test code. (Col. 33, lines 22-23, "scenario can be loaded and run repeatedly..." Also col. 32, lines 51-67, "...multiple Vusers...can be run simultaneously...each Vuser monitors the ...responses ...and records...");
- creating a second plurality of copies of the test code. (Fig. 30 and col. 33, lines 8-38, The same script can be run by groups of users and a scenario can hold multiple scripts. The Web Vuser Generator component generates scripts to be included within the scenario.);
- simultaneously executing the second plurality of copies of test code while recording times between events in each of the second plurality of copies of test code. (Col. 34, lines 34-35, "user can select...button to launch the controller and run the scenario." Col. 35, lines 9-10, "Following the generation of the scenario, the Load Wizard module launches the SiteTest or LoadRunner Controller." Also, col. 32, lines 64-67 "During the load testing process, each Vuser monitors the Website's responses...and records...");
- repeating a predetermined number of times the steps of creating plural copies of the test code and simultaneously executing the plural copies while recording event times. (Col. 32, lines 51-54, "...multiple Vusers can be run simultaneously on a single workstation, with different Vusers optionally running different Web scripts...multiple client requests can be pending at-a-time...");

-analyzing the recorded times to present information on the performance of the component of the application under test as a function of load. (Col. 32, line 66 – col. 33, line 8, “...Vuser...records various performance related characteristics of these responses...include...response time...the user is presented with a set of graphical reports...”).

Per claim 19, Weinberg disclosed:

-the components comprise enterprise Java beans. (Weinberg’s server runs an application. Java is a type of application that can run on a server. Java beans can make up Java components. As referred to in col. 16, line 17, Weinberg’s invention is capable of filtering out (or not) Java, among other types. Figs. 12 & 25 show server components.).

Per claim 20, Weinberg disclosed:

-each component has a plurality of functions therein and the test code exercises functions of the components. (Col. 8, lines 31-43, “The Web site is depicted by Astra as a collection of nodes...Each node ...represents a respective content object of the Web site...Examples of URLs (content objects) which may exist...include...Java applets...and applications.” Also, col. 31, lines 61-63, “...feature of the invention involved the ability to automatically generate load testing scripts, and associated “scenario files” from server access log files of the Web sites.”).

Per claim 21, Weinberg disclosed:

-the events at which times are recorded includes times at which commands are issued to access functions of the components and times at which execution of the commands are completed. (Col. 32, line 66 – col. 33, line 1, “...performance-related characteristics...include, for example, response times...”).

Per claim 22, Weinberg disclosed:

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-coordination software. (Abstract, lines 1-4, “A visual Web site analysis program, implemented as a collection of software components, provides a variety of features for facilitating the analysis, management and load testing of Web sites.”);

-at least one code generator, receiving as an input commands from the coordination software and having as an output client test code. (Abstract, lines 20-22, “A Load Wizard module uses this activity data to generate testing scenarios for load testing the Web site.”);

-at least one test engine, receiving as an input commands from the coordination software, the test engine comprising a computer server having a plurality of threads thereon, each thread executing an instance of the client test code. (Fig. 25 & 30);

-at least one data log having computerized memory, the memory holding timing data created by the instances of the client test code in the plurality of threads. (Col. 32, lines 64-67, “...each Vuser monitors the Web site’s responses to the client requests submitted...and records (data log) various performance-related characteristics...”);

-at least one data analyzer software, operatively connected to the data log, having an output that represents performance of the application under test in response to load. (Col. 33, lines 3-4, “...user is presented with a set of graphical reports that allow the user (to) evaluate the site’s performance.”).

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure.

U.S. Patent No. 4,617,663 to Lake et al., (Interface testing of Software systems, generating software scripts.)

U.S. Patent No. 5,671,351 to Wild et al., (System and method for automated testing and monitoring of software applications, outputs report.)

U.S. Pat No. 5,812,780 to Chen et al., (Method and system and product for assessing a server application performance. Fig. 7 & col. 15, line 65 – col. 16, line 55, “...analysis of the simulation results represented by the task response times found in the log file occurs at performance analysis step 66...” & col. 15, line 36 – col. 16, line 51, “Once a task is completed, the total time for completion is calculated at log response times ...After the execution of the user load simulation...analysis of the simulation results ...found in the log file occurs at performance analysis step 66. Performance analysis...comprises ordering the response times...other response time based statistics could advantageously be used as part of he present invention...weighted average response time...Network administrators may make graphs...” & col. 16, lines 6-7, “...ordering the response times...from the quickest to the longest...”)

U.S. Pat No. 5,881,269 to Dobbelstein, (Simulation of multiple local area network clients on a single workstation.)

U.S. Pat No. 6,002,871 to Duggan et al., (Multi-user application program testing tool.)

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (703) 305-4564. The examiner can normally be reached Monday through Thursday, from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Gregory Morse can be reached on (703) 308-4789.

The fax phone numbers are (703) 746-7240 for regular communications and (703) 746-7239 for After Final communications. Any inquiry of a general nature or relating to the status of

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this application or proceeding should be directed to the receptionist whose telephone number is
(703) 305-3900.

MS

10/08/2002



ANIL KHATRI
PRIMARY EXAMINER